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**INTRODUCTION**

The body of your abstract begins here. It should be an explicit summary of your presentation that states the problem, the methods used, and the major results and conclusions. Do not include scientific symbols, acronyms, numbers, bullets or lists in the abstract. It should be single-spaced in 10-point Times New Roman. The first part of your abstract should state the problem you set out to solve or the issue you set out to explore and explain your rationale for pursuing the project. The problem or issue might be a research question, a gap in critical attention to a text, a societal concern, etc.

**MATERIAL AND METHODS**

The purpose of your study is to solve this problem and/or add to your discipline’s understanding of the issue. This section of the abstract should explain how you went about solving the problem or exploring the issue you identified. Your abstract should also describe the research methods; this section should include a concise description of the process by which you conducted your research.

**RESULTS AND DISCUSSION**

Next, your abstract should list the results or outcomes of the work you have done so far. If your project is not yet complete, you may still include preliminary results or your hypotheses about what those results will be.

**CONCLUSIONS**

Finally, your abstract should close with a statement of the project’s implications and contributions to its field. It should convince readers that the project is interesting, valuable, and worth investigating further. In particular, it should convince conference registrants to attend your presentation.

**REFERENCES**

References should be listed in chronological order. Use the formatting of the South Africa Journal of Plant and Soil.

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**EXAMPLE ABSTRACT**

**EVALUATION OF SUNFLOWER, SOYBEANS AND MAIZE CROP ROTATION WITH MONO-CROPPING**

**Anderson, J.J., Botha, J.J. and Wessels, C.H.**

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**INTRODUCTION**

Research on the in-field rainwater harvesting (IRWH) technique with respect to crop rotation has not been conducted previously and can help in providing answers to resource-poor farmers who can rotate oilseed crops to get maximum results in terms of crop yields. The main objective of the study was to conduct a crop rotation experiment with sunflower, soybean and maize within the IRWH technique and also compare yields with mono-cropping using conventional tillage (CON).

**MATERIALS AND METHODS**

An on-station field experiment was conducted at the Glen Agricultural Institute, on the Glen/Bonheim ecotope (28º57` S, 26º20` E). The experiment was conducted over a period of five growing seasons (2006/07 – 2010/11). Maize (cultivar PHB33A1B; 22000 plants ha-1), sunflower (cultivar PAN7351; 33333 plants ha-1) and soybeans (cultivar PAN 421R; 133333 plants ha-1) were planted as indicator crops in mono-cropping and rotation within the IRWH system and CON. Soil water content (SWC) was monitor at depths of 150, 450, 750 and 1050 mm during the fallow and growing seasons with a neutron water meter. Standard agronomic practices were followed. Biomass, grain yield and rainwater productivity (RWP), were measured and calculated following standard procedures.

**RESULTS AND DISCUSSION**

IRWH treatments produced significantly higher biomass yields at flowering, seed and biomass yields at harvest and RWP values compared to CON. When comparing mono-cropping (CON vs. IRWH) results indicated that IRWH mono-cropping increased biomass at flowering on average by 65%, 144% and 140% compared to CON mono-cropping for maize, sunflower and soybeans, respectively, during the experimental period. The IRWH mono-cropping also increased maize, sunflower and soybean yields on average with 114%, 149% and 194%, respectively, compared to CON mono-cropping. IRWH mono-cropping produced on average with maize, sunflower and soybean for every mm of rain that occurred 2.79, 1.2 and 2.01 kg more grain yield per hectare, respectively compared to CON mono-cropping. Reasons for this phenomenon were due to the ability of IRWH to stop ex-field runoff completely, to minimize evaporation from the soil surface and to harvest additional rainwater from the untilled 2 m runoff area and therefore maintain higher SWC compared to CON.

**CONCLUSIONS**

Soybean is a suitable crop to plant in rotation with maize and sunflower to increase maize and sunflower yields. However, soybeans planted in mono-cropping (1267 kg ha-1) outperformed the soybeans that were planted in rotation with maize (1238 kg ha-1) or sunflower (1014 kg ha-1). Maize is the most productive crop on the Glen/Bonheim ecotope. Average RWP values for maize, soybean and sunflower were 3.86, 2.05 and 2.01 kg ha-1 mm-1, respectively.

**KEYWORDS:** *Conventional tillage, crop rotation, in-field rainwater harvesting, mono-cropping*

**ACKNOWLEDGEMENTS**

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